Federal Implementation Guideline for Electronic Data Interchange

ASC X12 003040 Transaction Set 997 Functional Acknowledgment (Revision 1)

Implementation Convention

U.S. DEPARTMENT OF COMMERCE
Technology Administration
National Institute of
Standards and Technology

NIST

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[1] At Boulder, CO 80303.
[2] Some elements at Boulder, CO.

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997 Functional Acknowledgement

Introduction:

This Draft Standard for Trial Use contains the format and establishes the data contents of the Functional Acknowledgement Transaction Set (997) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to define the control structures for a set of acknowledgements to indicate the results of the syntactical analysis of the electronically encoded documents. The encoded documents are the transaction sets, which are grouped in functional groups, used in defining transactions for business data interchange. This standard does not cover the semantic meaning of the information encoded in the transaction sets.

Notes:

Use this transaction set to acknowledge the receipt, and acceptance or rejection of a functional group and the transaction set(s) contained within it based upon EDI translation software syntax edits.

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
Must Use	010	ST	Transaction Set Header	M	1		n1
Must Use	020	AK1	Functional Group Response Header	M	1		n2
			LOOP ID - AK2			999999	
	030	AK2	Transaction Set Response Header	O	1		n3
			LOOP ID - AK3			999999	
	040	AK3	Data Segment Note	O	1		c1
	050	AK4	Data Element Note	O	99		
Must Use	060	AK5	Transaction Set Response Trailer	M	1		
Must Use	070	AK9	Functional Group Response Trailer	M	1		
Must Use	080	SE	Transaction Set Trailer	M	1		

Transaction Set Notes

1. These acknowledgements shall not be acknowledged, thereby preventing an endless cycle of acknowledgements of acknowledgements.
    The Functional Group Header Segment (GS) is used to start the envelope for the Functional Acknowledgement Transaction Sets. In preparing the functional group of acknowledgements, the application sender's code and the application receiver's code, taken from the functional group being acknowledged, are exchanged; therefore, one acknowledgement functional group responds to only those functional groups from one application receiver's code to one application sender's code.
    There is only one Functional Acknowledgement Transaction Set per acknowledged functional group.
2. AK1 is used to respond to the functional group header and to start the acknowledgement for a functional group. There shall be one AK1 segment for the functional group that is being acknowledged.
3. AK2 is used to start the acknowledgement of a transaction set within the received functional group. The AK2 segments shall appear in the same order as the transaction sets in the functional group that has been received and is being acknowledged.

Transaction Set Comments

1. The data segments of this standard are used to report the results of the syntatical analysis of the functional groups of transaction sets; they report the extent to which the syntax complies with the standards for

transaction sets and functional groups. They do not report on the semantic meaning of the transaction sets (for example, on the ability of the receiver to comply with the request of the sender).

Segment:	**ST** **Transaction Set Header**
Position:	010
Loop:	
Level:	
Usage:	Mandatory
Max Use:	1
Purpose:	To indicate the start of a transaction set and to assign a control number
Syntax Notes:	
Semantic Notes:	1 The transaction set identifier (ST01) used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).
Comments:	

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**ST01**	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set	**M** ID 3/3
			997 X12.20 Functional Acknowledgement	
Must Use	**ST02**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set *Use to transmit a unique number assigned by the originator of the transaction set. This number may be system generated.*	**M** AN 4/9

Segment:	**AK1** Functional Group Response Header
Position:	020
Loop:	
Level:	
Usage:	Mandatory
Max Use:	1
Purpose:	To start acknowledgement of a functional group
Syntax Notes:	
Semantic Notes:	1 AK101 is the functional ID found in the GS segment (GS01) in the functional group being acknowledged.
	2 AK102 is the data interchange control number found in the GS segment in the functional group being acknowledged.
Comments:	
Notes:	*1. Use to identify the unique identification number of the functional group in which the transaction set(s) being acknowledged was received.*
	2. Only one functional group may be referenced in a single 997 acknowledgement transaction set.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	AK101	479	**Functional Identifier Code**	M ID 2/2
			Code identifying a group of application related transaction sets	
			Cite, using the appropriate code from the X12 code list, the functional group ID found in GS01 of the functional group being acknowledged.	
			Refer to 003040 Data Element Dictionary for acceptable code values.	
Must Use	AK102	28	**Group Control Number**	M N0 1/9
			Assigned number originated and maintained by the sender	
			Use to identify the number cited in GS06 of the functional group being acknowledged.	

Segment:	**AK2** Transaction Set Response Header	
Position:	030	
Loop:	AK2 Optional	
Level:		
Usage:	Optional	
Max Use:	1	
Purpose:	To start acknowledgement of a single transaction set	
Syntax Notes:		
Semantic Notes:	1	AK201 is the transaction set ID found in the ST segment (ST01) in the transaction set being acknowledged.
	2	AK202 is the transaction set control number found in the ST segment in the transaction set being acknowledged.
Comments:		
Notes:		

1. Use to identify the unique identification number of the transaction set being acknowledged.

2. AK2 and AK5 shall be provided for each Transaction Set that is accepted.

3. Also, AK2 and AK5 shall be provided for each Transaction Set being rejected for containing a syntactical error.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	AK201	143	Transaction Set Identifier Code	M ID 3/3
			Code uniquely identifying a Transaction Set	

Cite, using the appropriate code from the X12 code list, the transaction set ID found in the ST segment.
Refer to 003040 Data Element Dictionary for acceptable code values.

Must Use	AK202	329	Transaction Set Control Number	M AN 4/9
			Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	

Use to identify the number cited in the ST02 of the transaction set being acknowledged.

Segment:	**AK3** Data Segment Note
Position:	040
Loop:	AK3 Optional
Level:	
Usage:	Optional
Max Use:	1
Purpose:	To report errors in a data segment and identify the location of the data segment
Syntax Notes:	
Semantic Notes:	
Comments:	
Notes:	*1. Use the 1/AK3/040 loop only when Trading Partner Agreements or translation software do not permit the level of receipt and rejection reporting to be limited to the group or transaction set level.*
	2. This 1/AK3/040 loop is used only to identify one or more segments containing syntactical errors resulting in rejection of the transaction set or functional group. This loop is not used when transaction set and functional group receipt and acceptance is being acknowledged.
	3. Use to identify one or more segments containing syntax errors.

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes
Must Use	AK301	721	Segment ID Code	M	ID 2/3
			Code defining the segment ID of the data segment in error (See Appendix A - Number 77)		
			Use to identify the segment containing syntactical errors, as it appears in the ASC X12 Data Segment Dictionary, e.g., DTM, N1, REF etc.		
Must Use	AK302	719	Segment Position in Transaction Set	M	N0 1/6
			The numerical count position of this data segment from the start of the transaction set: the transaction set header is count position 1		
			Use to identify the segment sequential position within the data stream of the transaction set as transmitted. This is not the segment portrayed in the transaction set structure.		
Not Used	AK303	447	Loop Identifier Code	O	AN 1/4
			The loop ID number given on the transaction set diagram is the value for this data element in segments LS and LE		
Must Use	AK304	720	Segment Syntax Error Code	O	ID 1/3
			Code indicating error found based on the syntax editing of a segment		
			1. Use only when a segment is being rejected to identify the basis for transaction set rejection.		
			2. Do not use when the error is in a data element within the segment.		
			Refer to 003040 Data Element Dictionary for acceptable code values.		
Not Used	AK305	720	Segment Syntax Error Code	O	ID 1/3
			Code indicating error found based on the syntax editing of a segment		
Not Used	AK306	720	Segment Syntax Error Code	O	ID 1/3
			Code indicating error found based on the syntax editing of a segment		
Not Used	AK307	720	Segment Syntax Error Code	O	ID 1/3
			Code indicating error found based on the syntax editing of a segment		
Not Used	AK308	720	Segment Syntax Error Code	O	ID 1/3
			Code indicating error found based on the syntax editing of a segment		

Segment:	**AK4** Data Element Note	
Position:	050	
Loop:	AK3	Optional
Level:		
Usage:	Optional	
Max Use:	99	
Purpose:	To report errors in a data element and identify the location of the data element	
Syntax Notes:		
Semantic Notes:		
Comments:		
Notes:	*1. Use to identify an erroneous data element. The segment which contains the erroneous data element must be identified in the preceding AK3 segment.*	
	2. Use multiple occurrences of this segment to identify one or more data element errors within the segment specified in the preceding AK3 segment.	

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	AK401	722	**Element Position in Segment**	M N0 1/2

This is used to indicate the relative position of the data element in error in this data segment. The count starts with 1 for the data element immediately following the segment ID. This value is 0 for an error in the segment ID.

Use to indicate the relative position of the data element containing the syntactical error within the segment. for example, in the N1 segment: 1 indicates an error in element N101, 2 indicates and error in element N102, etc. (Note: An error in the segment ID is identified in the AK3 segment and need not be identified at this level.

	Ref. Des.	Data Element	Name	Attributes
	AK402	725	**Data Element Reference Number**	O N0 1/4

Reference number used to locate the Data Element Dictionary.

Use to identify the data element number as it appears in the ASC X12 data Element Dictionary. For example, the data element number for the AK402 data element is 725.

	Ref. Des.	Data Element	Name	Attributes
Must Use	AK403	723	**Data Element Syntax Error Code**	M ID 1/3

Code indicating the error found after syntax edits of a data element

Use any code.

Refer to 003040 Data Element Dictionary for acceptable code values.

	Ref. Des.	Data Element	Name	Attributes
	AK404	724	**Copy of Bad Data Element**	O AN 1/99

This is a copy of the data element in error

Segment:	**AK5** Transaction Set Response Trailer
Position:	060
Loop:	AK2 Optional
Level:	
Usage:	Mandatory
Max Use:	1
Purpose:	To acknowledge acceptance or rejection and report errors in a transaction set
Syntax Notes:	
Semantic Notes:	
Comments:	
Notes:	*1. Use to indicate whether the transaction set indicated in the corresponding AK2 segment was accepted or rejected.*
	2. If the transaction set is rejected, use this segment to identify up to five (5) syntax errors at the transaction set level.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**AK501**	**717**	**Transaction Set Acknowledgement Code**	**M ID 1/1**

Code indicating accept or reject condition based on the syntax editing of the transaction set

A	Accepted
E	Accepted But Errors Were Noted
R	Rejected
X	Rejected, Content After Decryption Could Not Be Analyzed

	AK502	**718**	**Transaction Set Syntax Error Code**	**O ID 1/3**

Code indicating error found based on the syntax editing of a transaction set

1. Use only when a transaction set is being rejected to identify the basis for rejection.

2. Use any code. Codes may also be used in AK503-06 but no individual code may be used more than once.

3. When the 1/AK3/040 loop is not used and syntactical errors occurred below the transaction set level, use code 5.

Refer to 003040 Data Element Dictionary for acceptable code values.

	AK503	**718**	**Transaction Set Syntax Error Code**	**O ID 1/3**

Code indicating error found based on the syntax editing of a transaction set
Refer to 003040 Data Element Dictionary for acceptable code values.

	AK504	**718**	**Transaction Set Syntax Error Code**	**O ID 1/3**

Code indicating error found based on the syntax editing of a transaction set
Refer to 003040 Data Element Dictionary for acceptable code values.

	AK505	**718**	**Transaction Set Syntax Error Code**	**O ID 1/3**

Code indicating error found based on the syntax editing of a transaction set
Refer to 003040 Data Element Dictionary for acceptable code values.

	AK506	**718**	**Transaction Set Syntax Error Code**	**O ID 1/3**

Code indicating error found based on the syntax editing of a transaction set
Refer to 003040 Data Element Dictionary for acceptable code values.

Segment:	**AK9** Functional Group Response Trailer	
Position:	070	
Loop:		
Level:		
Usage:	Mandatory	
Max Use:	1	
Purpose:	To acknowledge acceptance or rejection of a functional group and report the number of included transaction sets from the original trailer, the accepted sets, and the received sets in this functional group	
Syntax Notes:		
Semantic Notes:		
Comments:	1 If AK901 is 'A' or 'E', then the transmitted functional group is accepted. If AK901 is 'R', then the transmitted group is rejected.	

Notes:

1. Use only to indicate whether the functional group was accepted or rejected based on syntax errors in the functional group header or trailer.

2. If a functional group is rejected, all transaction sets within that group must be rejected using the AK9. In this case, individual AK2s for the rejected transaction sets need not be provided.

3. If the functional group is rejected, use to identify up to five (5) syntax errors at the functional group level.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**AK901**	715	**Functional Group Acknowledge Code**	M	ID 1/1

Code indicating accept or reject condition based on the syntax editing of the functional group

A	Accepted
E	Accepted, But Errors Were Noted.
P	Partially Accepted, At Least One Transaction Set Was Rejected
R	Rejected

Must Use	**AK902**	97	**Number of Transaction Sets Included**	M	N0 1/6

Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element

Must Use	**AK903**	123	**Number of Received Transaction Sets**	M	N0 1/6

Number of Transaction Sets received

Must Use	**AK904**	2	**Number of Accepted Transaction Sets**	M	N0 1/6

Number of accepted Transaction Sets in a Functional Group

	AK905	716	**Functional Group Syntax Error Code**	O	ID 1/3

Code indicating error found based on the syntax editing of the functional group header and/or trailer

1. Use only when a functional group is being rejected to identify the basis for rejection.

2. Codes may also be used in AK906-09, but no individual code may be used more than once in a single iteration of this segment.

Refer to 003040 Data Element Dictionary for acceptable code values.

	AK906	716	**Functional Group Syntax Error Code**	O	ID 1/3

Code indicating error found based on the syntax editing of the functional group header and/or trailer

Refer to 003040 Data Element Dictionary for acceptable code values.

| AK907 | 716 | **Functional Group Syntax Error Code** | O | ID 1/3 |

Code indicating error found based on the syntax editing of the functional group header and/or trailer
Refer to 003040 Data Element Dictionary for acceptable code values.

| AK908 | 716 | **Functional Group Syntax Error Code** | O | ID 1/3 |

Code indicating error found based on the syntax editing of the functional group header and/or trailer
Refer to 003040 Data Element Dictionary for acceptable code values.

| AK909 | 716 | **Functional Group Syntax Error Code** | O | ID 1/3 |

Code indicating error found based on the syntax editing of the functional group header and/or trailer
Refer to 003040 Data Element Dictionary for acceptable code values.

Segment:	**SE** Transaction Set Trailer	
Position:	080	
Loop:		
Level:		
Usage:	Mandatory	
Max Use:	1	
Purpose:	To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments).	
Syntax Notes:		
Semantic Notes:		
Comments:	1 SE is the last segment of each transaction set.	

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	SE01	96	**Number of Included Segments**	M N0 1/10
			Total number of segments included in a transaction set including ST and SE segments	
Must Use	SE02	329	**Transaction Set Control Number**	M AN 4/9
			Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set *Use the same number cited in ST02.*	

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